

CLAIMS

1. Process to produce a composition containing 5'-ribonucleotides comprising:
 - 5 a) subjecting a microorganism to autolysis under conditions at which a substantial part of the RNA remains in a form degradable into 5'-ribonucleotides and at which a substantial part of the RNA remains associated with the cell wall fraction;
 - b) subjecting the autolysate to solid/liquid separation and recovering the RNA-containing cell wall fraction;
 - c) converting the RNA in the recovered RNA-containing cell wall fraction into 5'-ribonucleotides.
- 10 2. Process according to claim 1, comprising:
 - d) separating the fraction containing 5'-ribonucleotides from the cell wall fraction.
- 15 3. Process according to claim 1 or 2, wherein autolysis in a) is initiated by damaging and/or partially disrupting the microbial cell walls.
4. Process according to claim 3, wherein damaging and/or partially disrupting the microbial cell walls is performed enzymatically.
- 20 5. Process according to any one of claims 1 to 4 wherein in a) at least 50% of the RNA remains in a form degradable into 5'-ribonucleotides, more preferably at least 60%, most preferably at least 70%.
6. Process according to any one of claims 1 to 5, wherein in a) at least 20% of the RNA remains associated with the cell wall fraction, preferably at least 30%, most preferably at least 40%.
- 25 7. Process according to any one of claims 1 to 6, wherein in b) the RNA-containing cell wall fraction is recovered by centrifugation or filtration.
8. Process according to any one of claims 1 to 6, wherein in b) the autolysate is subjected to ultrafiltration whereby a mixture of RNA-containing cell wall fraction and RNA derived from the microbial soluble fraction is recovered.
- 30 9. Process according to claim 8, wherein in c) the RNA in the recovered mixture of RNA-containing cell wall fraction and recovered RNA derived from the microbial soluble fraction are converted into 5'-ribonucleotides.

10. Process according to any one of claims 1 to 9, wherein in c) the RNA is enzymatically converted into 5'-ribonucleotides, preferably by 5'-Fdase or by 5'-Fdase and deaminase.
11. Composition containing 5'-ribonucleotides comprising an amount of 5'-ribonucleotides, based on sodium chloride free dry matter of the composition, of at least 15% w/w and less than 55% w/w, preferably of at least 30% w/w and less than 55% w/w, more preferably of at least 40% w/w and less than 55% w/w.
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12. Composition according to claim 11, which comprises a higher amount of 5'-GMP than the sum of the amounts of 5'-AMP and 5'-IMP (based on sodium chloride free dry matter of the composition).
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13. Composition according to claims 11 or 12 which further comprises glutamate wherein preferably the ratio of glutamate to 5'-ribonucleotides is at most 0.1, more preferably at most 0.05, most preferably at most 0.01.
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14. The use of a composition according to any one of claims 11 to 13 in food or feed.
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15. The use of a composition according to any one of claims 11 to 13 to improve the fat note in the taste and/or in the aroma and/or in the mouthfeel of food with reduced fat or low fat.
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16. The use of a composition according to any one of claims 11 to 13 to mask the side or after taste of an artificial sweetener in food.
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17. The use of a composition according to any one of claims 11 to 13, to improve the specific vegetable note and/or fruity note and/or alcoholic note in the taste and/or aroma and/or mouthfeel of a beverage.
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18. The use of a composition according to any one of claims 11 to 13 in the preparation of a yeast extract comprising 5'-ribonucleotides.
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